Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-17. (Cancelled)

- 18. (New). A process for preparing microspheres comprising an ionically crosslinked polymer, the process comprising:
- (a) producing liquid aerosol droplets from a solution comprising an ionically crosslinkable polyionic polymer into a continuous gas stream by using an ultrasonic nebulizer;
- (b) transferring the gas stream into a gelling solution comprising di-, multi- or polyvalent ions, whereby crosslinked polymer microspheres are formed, and
 - (c) separating the microspheres from the gelling solution.
- 19. (New) The process according to claim 18, wherein the ionically crosslinkable polymer is a polyanionic polymer and wherein the gelling solution comprises a polyvalent cation.
- 20. (New) The process according to claim 19, wherein the polyvalent cation of the gelling solution is selected from the group consisting of poly (allylamine hydrochloride), poly(ethylene imine), poly(diallyldimethylammonium chloride), polyamide-polyamine-epichlorhydrine, chitosan, amino-dextran, and protamine sulfate.
- 21. (New) The process according to claim 18, wherein the ionically crosslinkable polymer is a polyanionic polymer and wherein the gelling solution comprises di-, multi- or polyvalent cations.

- 22. (New) The process according to claim 21, wherein the polyanionic polymer is selected from the group consisting of anionic polysaccharides, a linear or branched polyacrylic acid, and polystyrene sulfonate.
- 23. (New) The process according to claim 22, wherein the anionic polysaccharide is selected from the group consisting of an alginic acid, a carrageenan, a cellulose sulphate, a dextran sulphate, a gellan, a pectin and water soluble salts thereof.
- 24. (New) The process according to claim 23, wherein the anionic polysaccharide is an alginic acid or a water soluble salt thereof.
- 25. (New) The process according to claim 21, wherein, in step (a), the polyanionic polymer is present in a concentration of from 0.1 % to 5.0 % by weight.
- 26. (New) The process according to claim 21, wherein the ion of the gelling solution is a metal cation selected from the group consisting of Pb2+, Cu2+, Ba2+, Sr2+, Cd2+, Ca2+, Zn2+, Co2+, and Ni2+.
- 27. (New) The process according to claim 26, wherein the metal cation of the gelling solution is selected from the group consisting of Ba2+, Sr2+, and Ca2+.
- 28. (New) The process according to claim 27, wherein the metal cation of the gelling solution is Ca2+.
- 29. (New) The process according to claim 18, wherein the gelling solution additionally comprises up to 1 % by weight of a surfactant.
- 30. (New) The process according to claim 29, wherein the surfactant is present in an amount of from 0.02 to 1.0 % by weight.

- 31. (New) The process according to claim 29, wherein the surfactant is selected from the group consisting of polyoxyethylene-sorbitans and surfactants comprising a block copolymer of ethylene oxide and/or propylene oxide.
- 32. (New) The process according to claim 18, wherein the temperature of the solution of the ionically crosslinkable polyionic polymer according to step (a) is kept within a temperature of from 15 to 50 °C.
- 33. (New) The process according to claim 21, wherein, in step (a), the solution comprises of from 0.75 % to 1.5 % by weight low viscosity sodium alginate, wherein the cation is Ca2+; and wherein the gelling solution comprises of from 0.05 % to 0.15 % by weight of poly(oxyethylene)20-sorbitane monolaureate.
- 34. (New) A system for preparing microspheres comprising an ionically crosslinked polymer, the system comprising:
- (a) an ultra sound generator situated in a nebulizing chamber which is filled with a solution comprising an ionically crosslinkable polymer;
 - (b) a radiator coil attached to the nebulizing chamber;
 - (d) a gas inlet attached to the nebulizing chamber
 - (e) a vessel for the gelling solution, equipped with agitation means; and
- (f) a transfer tubing attached to the nebulizing chamber, connecting nebulizing chamber and vessel, wherein the tubing is adapted to submerge into the gelling solution.
- 35. (New) The process according to claim 18, further comprising:
 - (d) filtering the microspheres through a screen.
- 36. (New) The process according to claim 30, wherein the surfactant is present in an amount of from 0.05 to 0.15% by weight.

- 37. (New) The process according to claim 32, wherein the temperature of the solution of the ionically crosslinkable polyionic polymer according to step (a) is kept within a temperature of from 25 to 35 °C.
- 38. (New) The system according to claim 34, further comprising:
- (c) means for keeping the gas-fluid level in the nebulizing chamber at a predetermined constant level.